Amendments to the Claims

1-16. (Cancelled)

17. (Previously presented) Apparatus for analysing a polynucleotide, the apparatus comprising: a support having an impermeable surface; porous material attached to the impermeable surface; and an array of oligonucleotides with predetermined sequences attached to the porous material, wherein the array comprises at least two defined cells, the sequence of the oligonucleotides of a first cell is different from the sequence of the oligonucleotides of a second cell, and the oligonucleotides are shorter than the polynucleotide.

18. (Previously presented) Apparatus of claim 17, wherein the porous material is a microporous material.

19. (Previously presented) Apparatus of claim 17, wherein the support is made of a silicon oxide.

20. (Previously presented) Apparatus of claim 19, wherein the support is made of glass.

21. (Previously presented) Apparatus of claim 17, comprising between 72 and 1.1 x 10^{12} cells.

22. (Previously presented) Apparatus of claim 17, wherein each cell holds at least $3x10^{-12}$ mmol of oligonucleotide.

23. (Previously presented) Apparatus of claim 17, wherein the oligonucleotides are covalently attached to the porous material.

24. (Previously presented) Apparatus of claim 23, wherein the oligonucleotides are covalently attached by a terminal nucleotide.

25. (Previously presented) Apparatus of claim 17, wherein the oligonucleotides are synthesized *in situ*.

26. (Previously presented) Apparatus of claim 17, wherein the apparatus is manufactured using a computer-controlled device.

27. (Previously presented) Apparatus of claim 26, wherein the computer-controlled device is a printing device.

28. (Currently amended) A method of making the apparatus of claim 17~~an array of oligonucleotides~~, which method comprises: attaching a plurality of oligonucleotides to a porous material that is attached to an impermeable surface of a support, the oligonucleotides having different predetermined sequences and being attached to the porous material at different known locations on the surface of the support through a computer-controlled printing device.

29. (Previously presented) Method of claim 28, wherein the porous material is a microporous material.

30. (Previously presented) Method of claim 28, wherein the support is made of a silicon oxide.

31. (Previously presented) Method of claim 30, wherein the support is made of glass.

32. (Previously presented) Method of claim 28, comprising between 72 and 1.1×10^{12} known locations.

33. (Previously presented) Method of claim 28, wherein the computer-controlled printing device delivers at least $3x10^{-12}$ mmol of oligonucleotide to the known locations.

34. (Previously presented) Method of claim 28, wherein the computer-controlled printing device is a plotter or an ink-jet printer.

35. (Previously presented) Method of claim 28, wherein the oligonucleotides are covalently attached to the porous material.

36. (Previously presented) Method of claim 35, wherein the oligonucleotides are covalently attached by a terminal nucleotide.

37-85. (Cancelled)

86. (New) Apparatus for analysing a polynucleotide, the apparatus comprising: a support having an impermeable surface; porous material attached to the impermeable surface; and an array of oligonucleotides with predetermined sequences attached to the porous material, wherein the array comprises at least two defined cells, the sequence of the oligonucleotides of a first cell is different from the sequence of the oligonucleotides of a second cell, and the oligonucleotides are shorter than the polynucleotide, wherein the oligonucleotides are covalently attached to the porous material.

87. (New) Apparatus of claim 86, wherein the oligonucleotides are covalently attached by a terminal nucleotide.

88. (New) A method of analysing a polynucleotide, which method comprises:

applying a labelled polynucleotide to be analysed or a fragment thereof to the apparatus according to claim 17 under hybridisation conditions, and

analysing the polynucleotide by observing the regions where the polynucleotide or fragment thereof hybridizes and the regions where the polynucleotide or fragment thereof does not hybridize.

89. (New) A method of comparing polynucleotide sequences, which method comprises:

applying the polynucleotides to the apparatus according to claim 17 under hybridizing conditions, and

observing the differences between the patterns of hybridisation.